



The **Cambridge Mathematics Placements (CMP)** programme provides research opportunities for students studying for undergraduate or Master's degrees in Mathematics. CMP enables students to find summer research placements in industry, the public sector, and other University departments. Students develop transferable skills and gain experience doing innovative mathematical research in an external setting, while hosts engage a talented mathematician to tackle research questions they face. In 2019, the programme facilitated 12 academic and 23 industry placements.

Organisations looking to engage a student with a background in mathematics can submit their projects to CMP. We will advertise the projects on our website and through our series of lunchtime seminars in January and February. Although we cannot promise a suitable student, we will do our best to help you find one. Projects are generally open to undergraduate and Master's students, but the project host can specify precisely what background and skills they require.

### 2020 Programme Dates

**Mid-November 2019:** Call for CMP projects sent to industrial partners.

**Mid-November to 17 January 2020:** Project proposals accepted and listed on the CMP website.

**27 January to 19 February 2020:** CMP lunchtime seminar series takes place on Mondays and Wednesdays. At each session, 5-6 hosts give short talks, followed by informal discussions with the students. Hosts may display a poster describing their project in the week prior to their presentation.

**21 February 2020:** Recommended deadline for students to express interest in projects.

**21 February to 6 March 2020:** Recommended period for organisations to review applications, interview, and make offers to students.

**6 March 2020:** For reasons of fairness, we ask that no student be required to respond to an offer before this date. Companies may continue to liaise with and make offers to students beyond this date.

**June to September 2020:** CMP projects take place, with exact dates agreed between student and host.

**August 2020:** CMP Presentation Day and Dinner.

**September 2020:** Reports and project feedback due.

### Benefits for Hosts

#### Direct engagement with Cambridge Mathematics Master's and undergraduate students

- Pitch projects at the CMP lunchtime seminar series and select students for summer placements. There is a high degree of freedom to propose both well-developed and speculative projects.

#### Involvement with a growing knowledge exchange community

- Interact with a maths-focussed research community comprising the Mathematics Faculty, other departments, public sector organisations and industrial partners.
- Develop relationships that may lead to collaborations.
- Attend CMP Presentation Day to hear other host/student placement experiences and approaches, followed by dinner at a Cambridge college.
- Participate in the CMP Annual General Meeting to review the programme and suggest improvements.

#### Progression of research objectives

- Projects tackle research challenges in a diverse range of areas, and provide new approaches to solving problems.
- Placements bridge gaps in mathematical expertise.

### The CMP Supporters Club

We welcome all of our host partners to join the **Cambridge Mathematics Placements Supporters Club**. While there is no charge for submitting a project or participating in CMP, we ask partners and hosts — especially those who have had a successful project experience in the past — to join us in creating a sustainable funding model for the programme. Joining the Club is easy and subscription levels are flexible, to accommodate hosts with varying resources. Supporters can choose what they would like donate, with suggested annual donations of £4,000 for large companies, £2,000 for SMEs and £500-£1,000 for start-ups, small companies and non-industry partners.

In return we offer the following additional opportunities:

- Priority booking for the CMP lunchtime seminar series.
- Organisation details and logos on the CMP website.
- Participate in industry talks/events held in the Faculty.
- Communicate job openings to students.
- Support specific resources or projects if desired.

## What our hosts are saying...

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### 2019 CMP Hosts

#### **BP**

Cambridge Advanced Imaging  
Centre

Cavendish Laboratory

#### **Centrica**

Computer Laboratory

Department of Engineering

Department of Veterinary  
Medicine

EMBL-EBI

Faculty of Music

#### **GSK**

**Health Data Insight**

**Iconal Technology**

Judge Business School

MM Flowers

National Physical Laboratory

**Oxford Asset Management**

**Riverlane**

Shell

Silvaco Europe, UK

The Met Office

Transfaction

Special thanks to the organisations indicated in bold, who are also members of our CMP Supporters Club.

*"Qing provided essential help in the implementation and assessment of methods of interest to GSK for the design and analysis of pharmacokinetic studies. She has been dedicated to this project, yet practical in her availability to be guided so as to remain focussed on what needed to be achieved within a limited amount of time. We all wish that we had more time to do more."*

- Fabio Rigat, GSK

*"Very impressed! Callum made more progress in the first 3 weeks of his placement than a previous Master's student had done in 3 months! From day one he has taken a very professional approach to the problem and has required less supervision than I had anticipated. He just gets on with the work, makes astute comments, asks relevant questions and delivers useful results."*

- Olivier Restif, Department of Veterinary Medicine

*"Excellent student. Got to grips with the programming environment very quickly and showed excellent understanding of the underlying principles and the specific problem. Devised a simulation method of addressing the problem and a new algorithm."*

- Malcolm Kitchen, Met Office

*"Maisie has been able to quickly and independently research and identify a working alternative and seemingly much improved approach to an algorithm that forms a significant part of the final deliverable of a high profile R&D project for an external customer."*

- Sam Pollock, Iconal Technology

**100%** of hosts providing feedback on CMP projects in 2019 say that they would recommend that other organisations get involved with the programme.

**100%** of hosts also say that their student's mathematical background enabled them to make a significant contribution to the project. In more than half of these cases, the work undertaken would not have been done otherwise.

## Become a CMP Host

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Think your company has a good project for a Cambridge Maths student?

To sign up to receive our 2020 call for projects, or talk about ways to get involved, e-mail: [CMP@maths.cam.ac.uk](mailto:CMP@maths.cam.ac.uk)

To learn more about the programme, view past project proposals, and submit a project for 2020, visit: <http://www.maths.cam.ac.uk/opportunities/careers-for-mathematicians/summer-research-mathematics>

Industrial placement organisations have full financial responsibility for their projects. The interview process, stipend/salary, and the terms and conditions of employment are to be agreed directly between the company and the student.